Title (en)

Spread spectrum clock generator and associated method

Title (de)

Taktgenerator mit spektraler Dispersion und assoziertes Verfahren

Title (fr)

Générateur d'horloge à dispersion spectrale et méthode associée

Publication

EP 1073194 B1 20070627 (EN)

Application

EP 00119532 A 19941129

Priority

- EP 94308802 A 19941129
- US 16007793 A 19931129

Abstract (en)

[origin: EP0655829A1] A clock circuit includes an oscillator (15) for generating a reference frequency signal, and a spread spectrum clock generator (14) cooperating with the oscillator for generating a spread spectrum clock output signal having a fundamental frequency and reduced amplitude EMI spectral components at harmonics of the fundamental frequency. The spread spectrum clock generator preferably includes a clock pulse generator for generating a series of clock pulses, and a spread spectrum modulator for frequency modulating the clock pulse generator to broaden and flatten amplitudes of EMI spectral components which would otherwise be produced by the clock pulse generator. The spread spectrum modulator frequency modulates the clock pulses with specific profiles of frequency deviation versus the period of the profile. Electronic devices including the spread spectrum clock circuit and associated method are also disclosed. <IMAGE>

IPC 8 full level

G06F 1/04 (2006.01); G06F 15/78 (2006.01); H03B 29/00 (2006.01); H03C 3/09 (2006.01); H03K 4/94 (2006.01); H03L 7/197 (2006.01)

CPC (source: EP KR US)

H03B 29/00 (2013.01 - EP US); H03C 3/0925 (2013.01 - EP US); H03C 3/0941 (2013.01 - EP US); H03C 3/0966 (2013.01 - EP US); H03K 4/94 (2013.01 - KR); H03L 7/0805 (2013.01 - EP US); H03L 7/197 (2013.01 - EP US); H04B 2215/064 (2013.01 - EP US); H04B 2215/067 (2013.01 - EP US)

Cited by

US7446732B2; US11139819B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0655829 A1 19950531; **EP 0655829 B1 20010418**; AU 676355 B2 19970306; AU 7282194 A 19950615; CA 2131567 A1 19950530; CA 2131567 C 20050621; DE 69427114 D1 20010523; DE 69427114 T2 20011018; DE 69434994 D1 20070809; DE 69434994 T2 20080306; EP 1073194 A2 20010131; EP 1073194 A3 20010711; EP 1073194 B1 20070627; JP 2006217642 A 20060817; JP 3997248 B2 20071024; JP H07235862 A 19950905; KR 100367540 B1 20030303; KR 950016121 A 19950617; US 5488627 A 19960130; US 5867524 A 19990202

DOCDB simple family (application)

EP 94308802 A 19941129; AU 7282194 A 19940905; CA 2131567 A 19940907; DE 69427114 T 19941129; DE 69434994 T 19941129; EP 00119532 A 19941129; JP 2006063644 A 20060309; JP 31756094 A 19941128; KR 19940032387 A 19941129; US 16007793 A 19931129; US 80089097 A 19970213